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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/407,133	09/27/1999	JOHN A. PINKNEY	LAMA114491	2342

26389 7590 08/25/2003

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EXAMINER

LIU, SHUWANG

ART UNIT	PAPER NUMBER
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2634

DATE MAILED: 08/25/2003

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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/407,133

Applicant(s)

PINKNEY ET AL.

Examiner

Shuwang Liu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 June 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,5-9 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-9 and 11 is/are rejected.
- 7) ☒ Claim(s) 3 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 6) ☐ Other: _____

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 05/30/03 and 06/30/03 have been fully considered but they are not persuasive. The Examiner has thoroughly reviewed Applicant's arguments but firmly believes that the cited reference (Pinkney et al., IEEE, 1999) reasonably and properly meet the claimed limitation as rejected.

(1) Applicant's argument – "The Pinkney et al. article was published less than one year before the filling of the present application."

Examiner's response – According to 35 U.S.C. 102 (a), loss of the right to patent if the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, **before** the invention thereof by the applicant for a patent. Any other interpretation of 35 U.S.C. 102 (a) "would negate the one year [grace] period afforded under § 102 (b)." *In re Katz*, 687 F.2d 450, 215 USPQ 14 (CCPA 1982).

(2) Applicant's argument – "Pinkney et al. article was conceived solely by Mr. Pinkney and/or coinventor Mr. Nicols, and not by the other named co-authors of the Pinkney et al. article." Furthermore, the applicants provide a declaration to support the argument.

Examiner's response – Firstly, according to the MPEP 2132, "BY OTHERS" means any combination of authors or inventors **different than the inventive entity**." The term "others" in 35 U.S.C. 102(a) refers to any entity which is different from the

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inventive entity. The entity needs only differ by one person to be "by others." In this case, the authors of the article differ than the inventive entity.

Secondly, the affidavit under 37 CFR 1.132 filed on June 30, 2003, is insufficient to overcome the rejection of claims 1, 2, 4, 5, 8, 9, 11 and 12 based upon 35 U.S.C. 102(a) as set forth in the last Office action. The reason for the insufficiency follows.

Declaration

2. The affidavit (declaration) under 37 CFR 1.132 filed on June 30, 2003, is insufficient to overcome the rejection based upon 35 U.S.C. 102(a) as set forth in the last Office action because the Applicants fail to provide adequate evidence in the Affidavit to traverse the rejections. See MPEP § 716. The authors of the article provided by the applicants in the declaration are not consistent with the authors of the article. The authors of the article not only include the Applicants but also others. The Applicants fail to provide evidence to show that "Pinkney et al. article was conceived solely by Mr. Pinkney and/or coinventor Mr. Nicols, and not by the other named co-authors of the Pinkney et al. article." Objective evidence which must be factually supported by an appropriate affidavit or declaration to be of probative value includes allegations that the authors of the prior art derived that disclosed subject matter from the applicants.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 6 and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 6 recites the limitation "the received pulsed signal" in line 2. There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

6. Claims 1, 2, 5 and 11 are rejected under 35 U.S.C. 102(a) as being anticipated by Pinkney et al. (IEEE, 02/1999).

As shown in figures 4 and 8, Pinkney et al. discloses a method of communicating over a wireless indoor telecommunications channel (pages 84-88), the method comprising the steps of

(1) regarding claim 1:

generating (DPSK modulator) a pulsed signal in which information is carried in the phase of the pulsed signal;

spreading (SAW filter) the pulsed signal using a dispersive filter to form a chirp spread spectrum signal;

transmitting (antenna) the chirp spread spectrum signal over a wireless indoor telecommunications channel;

receiving (antenna) the chirp spread spectrum signal at a receiver;

despreading (SAW filter) the chirp spread spectrum signal using an inverse dispersive filter that is matched to the dispersive filter to yield a received pulsed signal;

passing the cophased channel impulse responses through a low-pass filter (see low-pass filter in figures 4 and 8) to generate data symbols; and

recovering (Decision Device in figure 8) the information carried in the phase of the received pulsed signal.

(2) regarding claim 2:

in which generating a pulsed signal comprises:

modulating a data signal onto a carrier using a phase differential modulator (DQPSK); and

converting (RF switch) the modulated carrier into a pulsed signal.

(3) regarding claim 5:

in which the dispersive filter is a SAW filter.

(4) regarding claim 11

A receiver for communicating over a wireless indoor communications channel with a transmitter defined by claim 8, the receiver comprising:

an RF receiving section (antenna and multiplier) configured to produce a received chirp spread spectrum signal as output;

an inverse dispersive filter (SAW filter) matched to the dispersive filter and connected to receive the chirp spread spectrum signal from the RF receiving section and generates a received pulsed signal;

a phase demodulator (multipliers after SAW Filter in figure 8) connected to the inverse dispersive filter, the phase demodulator generating cophased channel impulse response from the received pulsed signal;

a low-pass filter (see figure 8) on the output of the phase demodulator for generating data symbols from the cophased channel impulse response; and

a data extractor (Decision Device in figure 8)) connected to the low pass filter, the data extractor recovering originally transmitted information from the data symbols and having data as output.

7. Claims 8 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Takeuchi et al. (IEEE, June 1998).

As shown in figures 3-7, Takeuchi et al. discloses a method of communicating over a wireless indoor telecommunications channel pages 507-509), the method comprising the steps of

(1) regarding claim 8:

As shown in figure 3, Takeuchi et al. discloses a transmitter for communicating over a wireless indoor communications channel, the apparatus comprising:

a pulsed signal generator (2);

a dispersive filter (3) comprising plural filters (inherently from the multiplexity of chirp (k) in figure 3, page 509 and figure 4), the dispersive filter bank (see figure 4 and 3rd paragraph of page 508) being connected to receive a pulsed signal from the pulsed signal generator, wherein the excitation of each of plural filters corresponds to a different transmitted symbol value (0 or 1) (see 3rd paragraph of page 508 and figures 5 and 6), and the output the dispersive filter bank being a chirp spread spectrum signal; and

an RF section (4) for upconverting the chirp spread spectrum signal for transmission.

(2) regarding claim 9:

in which the pulsed signal generator comprises:

a data source (input to 1);

a differential phase modulator (1) connected to receive data tom the data source;

and

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an RF pulse generator (2) connected to receive a modulated signal from the differential phase modulator.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shuwang Liu whose telephone number is (703) 308-9556.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin, can be reached at (703) 305-4714.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

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Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.



Shuwang Liu
Primary Examiner
Art Unit 2634

July 31, 2003